IN THE CLAIMS:

Please amend the claims as follows:

1. – 5. (Cancelled)

6. (Original) A method of altering an optical waveguide to achieve a desired optical signal response from said waveguide, the method comprising:

a) inducing an increase in refractive index in a portion of said waveguide;

b) measuring an optical signal response from said waveguide;

c) heating a localized section of said portion to reduce said increase in said section if said optical signal response is not the desired optical signal response; and

d) repeating steps b) and c) until the desired optical signal response is achieved.

7. (Previously Presented) The method as in claim 6, wherein said heating is accomplished by using light which is absorbed at a surface of said waveguide to produce localized heat.

8. (Previously Presented) The method as in claim 6, further including heating at least said portion to stabilize said change prior to step b).

9. – 13. (Cancelled)

14. (Previously Presented) The method as in claim 6, wherein said heating is accomplished by using a laser.

15. (Previously Presented) The method as in claim 6, wherein said heating is accomplished by using a CO_2 laser.

16. (Previously Presented) The method as in claim 6, wherein said inducing is accomplished by using a UV light source.

17. (Previously Presented) The method as in claim 16, further including placing a phase mask between said UV light source and said waveguide to produce a grating in said portion of said waveguide.

18. (Previously Presented) A system for altering an optical waveguide to achieve a desired optical signal response from said waveguide, the system comprising:

a member configured to induce an increase in refractive index in a portion of said waveguide;

a measurement member configured to measure an optical signal response from said waveguide; and

a heat member configured to heat a localized section of said portion to reduce said increase in said section if said optical signal response is not the desired optical signal response.

19. (Previously Presented) The system as in claim 18, wherein said heat member comprises a light which is absorbed at a surface of said waveguide to produce localized heat.

20. (Previously Presented) The system as in claim 18, further including a heating system configured to stabilize said increase in the refractive index.

21. (Previously Presented) The system as in claim 18, wherein said heat member is a laser.

22. (Previously Presented) The system as in claim 18, wherein said heat member is a CO_2 laser.

23. (Previously Presented) The system as in claim 18, wherein said member configured to induce an increase in refractive index in a portion of said waveguide is a UV light source.

24. (Previously Presented) The system as in claim 23, wherein a phase mask is positioned between said UV light source and said waveguide to produce a grating in said portion of said waveguide.

Please add the following new claims:

25. (New) A method of altering an optical waveguide to achieve a desired optical signal response from said waveguide, the method comprising:

inducing an increase in refractive index in a portion of said waveguide;

measuring an optical signal response from said waveguide to determine if said optical signal response is the desired optical signal response;

heating a localized section of said portion to reduce said increase in said section in response to said measuring the optical signal response;

measuring a further optical signal response from said waveguide; and

heating a localized section of said portion to reduce said increase in said section in response to said measuring the further optical signal response if said further optical signal response is not the desired optical signal response.

26. (New) The method as in claim 25, wherein a laser provides said heating.

27. (New) The method as in claim 25, wherein a CO_2 laser provides said heating.

28. (New) The method as in claim 25, wherein a UV light source provides said inducing.

29. (New) The method as in claim 25, wherein a light which is absorbed at a surface of said waveguide to produce localized heat during said heating.